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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,705	11/28/2000	Yoshihiro Yanagisawa	35.C13918	5179

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EXAMINER

RAMSEY, KENNETH J

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/722,705

Applicant(s)

YANAGISAWA, YOSHIHIRO

Examiner

Kenneth J. Ramsey

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-12 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 9, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3 and 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 5, 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banno in view of Tokai et al. Banno discloses a process of forming a surface conduction emissive device comprising forming electrode pairs on a substrate, forming row wires connected to first electrodes of each pair and forming column wires connected to a second electrodes of each pair. Also, Banno discloses forming an emissive film by an inkjet process and "forming" the film by passing current through the film to create fissures which provide an electron emissive source. Further Banno, column 42, lines 55-64, discloses that the row and column wires may be formed by a photolithographic process. The particular photolithographic process is not taught, however, it is known from Tokai et al, column 2, lines 19-35, that high definition feeder wires in a display device may be formed at low cost by depositing a photosensitive film comprising conductive metal particles, exposing and developing the film, then baking. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to form the wire and column wires of Banno, by the photolithographic process of Tokai et al since a high definition wiring matrix can be formed by this process at low cost. As to claim 1 and similar claims reciting a different spacing between the row and column lines, because it is known to create red green and blue pixel as in figure 12 of Banno, it would have been obvious to form row and column lines at different intervals.

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As to claim 9, Official notice is taken of the fact that spacers to support the face plate against the atmospheric load are well known in field emissive displays since a high degree of evacuation is required.

3. Claims 3 and 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claims 10-12 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter: claims 3 and 10-12 are allowable since the prior art does not teach or suggest providing row and column conductors of a field emissive display by depositing a photosensitive film through a plurality of apertures of a mask on to a substrate, selectively exposing the film deposits to form row and column electrodes. Claims 6-8 are allowable since the prior art does not teach or suggest forming the row wires with a different cross section than the column wires.

#### Directions for Responses

Any formal response to this communication should be directed to examiner Kenneth Ramsey, Art Unit 2879, and either  
faxed to: 703-872-9318; or mailed to: Assistant Commissioner For Patents  
Washington, D.C. 20231

Technical inquiries concerning this communication should be directed to  
Kenneth J. Ramsey, (703) 308-2324 (voice), (703) 746-4832 (fax).

Kenneth J. Ramsey  
Primary Examiner  
Art Unit 2879

